

NOTEWORTHY COLLECTIONS

ARIZONA

HELIOTROPIMUM PRINGLEI Robbinson (BORAGINACEAE).—Cochise Co., 8.5 km w. New Mexico, and 5.2 km n. Mexico (T34S R31E S1), 1360 m, 20 Sep 1982, *Soreng & Salazar 1895* (NMC, UCS) (Det. by M. Frohlich).

Significance. First record for the US, representing a 450 km range extension to the nw. Previously known from Mexico to Guatemala, it is widespread in cent. Mexico, reaching cent. Chihuahua, near Cd. Chihuahua.—R. J. SORENG, Biology Dept., New Mexico State Univ., Las Cruces 88003.

CALIFORNIA

SPIRODELA PUNCTATA (G. F. W. Meyer) Thompson (LEMNACEAE).—USA, CA, San Diego Co., N. Twin Oaks Valley, pond e. side of N. Twin Oaks Valley Road, 2.4 km n. of junction with Hwy. S-12 (33°12'N, 117°10'W), 244 m, 4 Jul 1983, *Armstrong 1145* (RSA, SD). Forming dense colonies at surface of large pond covering at least 1.5 ha, associated with *Lemna minuscula* and *L. gibba* with combined density of 12–18 per cm² of water surface.

Previous knowledge. Widely distributed in tropical and temperate regions of both hemispheres. Often associated with *Lemna*, *Wolffia*, and *Azolla*. It was first recorded by G. F. W. Meyer in 1814 along the Essequibo River in what is now Guyana, South America. This species is listed as *S. oligorrhiza* by Daubs (Ill. Biol. Monogr. 34. 1965; Rhodora 64. 1962) and Mason (A fl. marshes Calif. 1957). According to Daubs, it has been introduced into the United States, apparently as an aquarium plant, and is now widespread. It is reported in California from the vicinity of Berkeley and from Fresno Co. It has undoubtedly been overlooked by botanists because of its superficial resemblance to certain species of *Lemna*. (Herbaria consulted: RSA, SD.)

Significance. First record of *Spirodela punctata* in s. CA, a se. extension of 470 km from the San Joaquin River, Fresno Co. This species is clearly distinguished from species of *Lemna* by its multiple roots, small ventral scale covering base of roots, brown pigment cells (visible only in dead fronds), and both raphide and druse crystals of calcium oxalate throughout the parenchyma. In addition, the fronds appear darker green than in *Lemna* and are conspicuously reddish on the ventral surface. It is distinguished from *S. polyrrhiza* by its smaller size and fewer roots, usually only 2 or 3 (Fig. 1).—WAYNE P. ARMSTRONG, Palomar College, San Marcos, CA 92069.

NEVADA

ARABIS CUSICKII S. Wats. (BRASSICACEAE).—Elko Co., Independence Mts., ridge e. of Gance Creek, ca. 5.6 km nw. of Saval Ranch, growing in rock outcrops (T40N R53E S25–26), 2500 m, 20 Jun 1979, *Tiehm & Birdsey 5163* (GH). (Det. by R. C. Rollins.)

Significance. First record for NV and is an extension of over 160 km s. from central ID.

ARTEMISIA PAPPOSA Blake & Cronq. (ASTERACEAE).—Elko Co., Independence Mts., meadow s. of Mahala Creek, 3.9 km n. of Saval Ranch, growing with *Artemisia* in drying meadow areas (T40N R54E S29), 2012 m, 23 Jun 1979, *Tiehm & Birdsey 5256* (CAS, CIC, MO, NY, RENO, UTC); ne. end of Sunflower Flat, 0.8 km w. of Bieroth Spring, growing in drying meadow areas (T45N R55E S14), 2012 m, 26 Jun 1980, *Tiehm & Read 6094* (CAS, CIC, MO, NY, RSA, UTC).

Significance. First records for NV and an extension of over 90 km s.

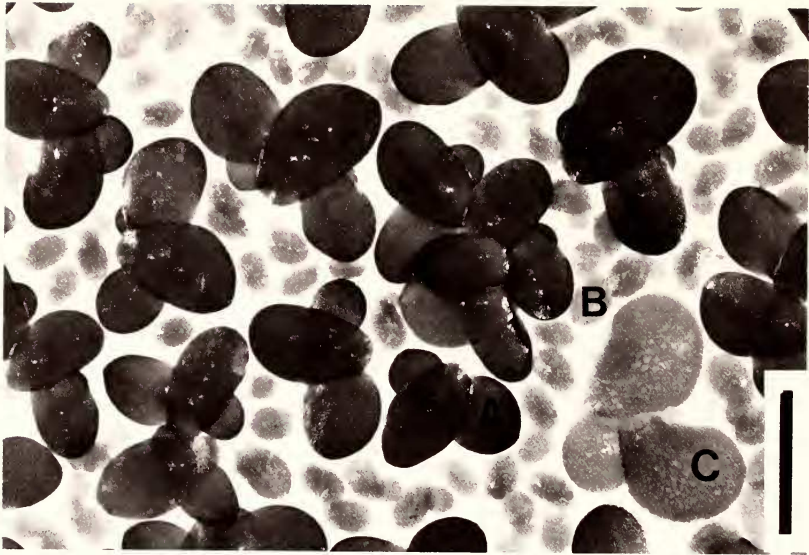


FIG. 1. Dense population of *Spirodela* and *Lemna* from pond in North Twin Oaks Valley, San Diego Co., CA. A. *Spirodela punctata*. B. *Lemna minuscula*. C. *L. gibba*. Scale bar is 5 mm. (See Armstrong, p. 123).

ASTRAGALUS DIVERSIFOLIUS A. Gray (FABACEAE).—White Pine Co., Spring Valley, North Spring area, growing with *Chrysothamnus* at the edge of seepage areas (T12N R67E S18), 1750 m, 17 Jun 1982, *Tiehm & Williams 7200* (CAS, MO, NY, RM, RSA, UTC). (Verified by R. C. Barneby.)

Significance. First record for NV and an extension of 125 km ssw. from the Ibapah region of UT.

ASTRAGALUS SALMONIS M. E. Jones (FABACEAE).—Elko Co., Bull Run Mts., NV hwy. 11, 40 km s. of Owyhee, 26 km sw. of Mountain City, 1707 m, 30 May 1971, *N. H. & P. K. Holmgren 4919* (NY); Independence Mts., 0.5 km ne. of Saval Ranch, just n. of the main road, growing with *Artemisia* on rocky flats (T39N R54E S4), 1920 m, 19 May 1980, *Tiehm & Birdsey 5623* (CAS, NY, RENO, UTC) (Det. by R. C. Barneby); 1.3 km ne. of Saval Ranch, growing with *Artemisia* on rocky flats (T40N R54E S33), 1920 m, 26 Jun 1980, *Tiehm & Read 6103* (CAS, NY, RSA, UTC).

Significance. First records for NV and an extension of over 145 km s.

BIDENS LAEVIS (L.) B.S.P. (ASTERACEAE).—Lincoln Co., Pahrnagat Valley, Crystal Spgs. along Hwy. 25, growing along the runoff from the springs (T5S R60E S10), 1170 m, 4 Oct 1980, *Tiehm 6334* (CAS, NY, UTC).

Significance. First record for NV and is an extension of over 240 km nnw. from Yavapi Co., AZ.

CYPSELEA HUMIFUSA Turp. (AIZOACEAE).—Lyon Co., Lahontan Reservoir, 14 Sep 1975, *Tiehm 1905* (RENO); Lahontan Reservoir at the end of 9th St., 29 Sep 1976, *Lott 89* (RENO); Churchill Co., n. end of Lahontan Reservoir near "the Cove," 14 Jul 1977, *Tiehm & Lott 3612* (CAS, NY, RENO); Lahontan Reservoir by "the Cove," 5 Oct 1976, *Lott 86* (RENO); all collections are from the exposed mud flats at the edge of the reservoir at around 1250 m.

Significance. First records for NV.

DALEA LANATA Spreng. var. TERMINALIS (M. E. Jones) Barneby (FABACEAE).—Clark Co., St. Thomas Gap area sw. of Whitney Ridge, 0.8 km n. of Grand Gulch road on reservoir road, growing on deep red sand (T17S R71E S32), 730 m, 14 May 1982, *Tiehm 6856* (CAS, NY, MO, RSA, UTC). (Verified by R. C. Barneby.)

Significance. First record for NV and a small extension w. from adjacent AZ.

ERIGERON LATUS (Nels. & Macbr.) Cronq. (ASTERACEAE).—Elko Co., Point of Rock, w. side of Sunflower Flat, growing on gravelly hillsides (T45N R55E S20), 1950 m, 24 Jun 1979, *Tiehm et al. 5272A* (CAS, CIC, NY, RSA, UTC). (Det. by A. Cronquist); hills on the e. side of Hwy. 51 at the south end of Wildhorse Reservoir, growing with *Artemisia* on gravelly hills (T43N R55E S9), 1890 m, 26 Jun 1980, *Tiehm & Read 6082* (CAS, CIC, NY, RSA, UTC); just n. of Poorman Creek, n. of Wildhorse Reservoir, 5.6 km nw. of Mendive Ranch, growing with *Artemisia* on gravelly hills, 26 Jun 1980, *Tiehm & Read 6087* (CAS, CIC, NY, RSA, UTC).

Significance. First records for NV and an extension of about 65 km s.

HYMENOPAPPUS FILIFOLIUS Hook. var. TOMENTOSUS (Rydb.) Turner (ASTERACEAE).—Clark Co., St. Thomas Gap area sw. of Whitney Ridge, 0.8 km n. of Grand Gulch road on reservoir road, growing on deep red sand (T17S R71E S32), 730 m, 14 May 1982, *Tiehm 6858* (CAS, NY, MO, RSA, TEX, UTC). (Verified by B. L. Turner.)

Significance. First record for NV and an extension of over 80 km sw. from the St. George area of Washington Co., UT.

MENTZELIA MOLLIS Peck (LOASACEAE).—Humboldt Co., Black Rock Range, Copper Canyon area about 11 km nearly due s. of Soldier Meadows Ranch, growing with *Atriplex* on brown clay hills (T39N R25E S15), 1400 m, 25 May 1982, *Tiehm & Williams 7030* (CAS, NY, OSU, RSA, UTC). (Verified by H. J. Thompson.)

Significance. First record for NV and an extension of 250 km sw.—A. TIEHM, 790 N. Maddux Dr., Reno, NV 89512.

NEW MEXICO

CYANCHUM ARIZONICUM (Gray) Shinnery (ASCLEPIADACEAE).—Hidalgo Co., Guadalupe Canyon (NW ¼ S4 T34S R21W), 1500 m, 16 Aug 1979, *Spellenberg and Repass 5353* (NMC). At base of rock on steep sw-facing rocky slope.

Significance. First report from NM, a range extension of ca. 200 km. Previously reported in the U.S. from southern AZ only.

TEPHROSIA TENELLA Gray (FABACEAE).—Hidalgo Co., Peloncillo Mts., Skeleton Canyon (S24 T31S R22W), 1500 m, 7 Sep 1981, *Spellenberg and Spellenberg 6334* (NMC); Guadalupe Canyon drainage (S23 T34S R22W), 1350 m, 21 Sep 1983, *Todsen 8316-11* (NMC). In level gravelly soil pockets on rocky slopes.

Significance. First reports from NM.

MECARDONIA VANDELLOIDES (H.B.K.) Penn. (SCROPHULARIACEAE).—Hidalgo Co., ¼ mi ne. of U.S. Border Monument 77, 1350 m, 17 Aug 1979, *Spellenberg and Repass 5364* (NMC); Side canyon of Guadalupe Canyon (S23 T34S R22W), 1300 m, 21 Sep 1983, *Todsen 8316-10* (NMC). In rock crevices in canyon bottom.

Significance. First reports from NM.—THOMAS K. TODSEN, Dept. of Biology, New Mexico State Univ., Las Cruces 88003.

PUCCINELLIA PARISHII A. Hitchc. (POACEAE).—Grant Co., se. corner, 40 km due se. Silver City, 1.7 km ne. of Faywood Hotsprings, 5.2 km ne. of US Hwy. 180 on NM Hwy. 61 (T20S R11W s. cent. S16), 1650 m, 23 May 1983, *Soreng & Ward 2158* (NMC, NMCR, US, WTU).

Significance. Extension of known range about 500 km se. from nearest location in AZ, and a reported location from Taos Co., NM 500 km sw. Previously known from a few locations in s. CA, two collections Coconino and Navajo Cos., AZ. Report for Taos Co., NM (Correll & Correll. 1972. Aquatic and Wetland Plants of Southwestern United States, p. 180), is questionable.

ASTRAGALUS VACCARUM Gray (FABACEAE).—Hidalgo Co., 25 km due se. Animas, w. edge Las Playas Lake (T28S R17W S28), 1640 m, 23 Aug 1982, *Soreng & Salazar 1921* (NMC, UNM).

Significance. First Hidalgo Co. record, this filling in a 300 km gap between the nearest NM and Mexico distributions reported by Barneby (1964. Mem. New York Bot. Gard., vol. 13, p. 1095). The two previous records in New Mexico (Grant Co., Luna Co.) are now well over 100 years old. (Erroneously reported from Hidalgo Co. in Martin & Hutchins. 1981. A Flora of New Mexico, vol. 1, p. 1059.)

ERIOGONUM ATRORUBENS Engelm. var. ATRORUBENS (POLYGONACEAE).—Hidalgo Co., w. slope San Luis Mts. ca. 0.25 km n. of United States border, 1800 m, 10 Oct 1982, *Spellenberg & Soreng 6832* (NMC).

Significance. First verifiable record from the US.

ERIOGONUM SCABRELLUM Reveal (POLYGONACEAE).—San Juan Co., ca. 22.5 km sw. of Fruitland, due e. of s. end of Hogback Mt., 1730 m, 7 Jun 1983, *Spellenberg & Soreng 7100* (US, NMC) (Verified by J. L. Reveal); thirty km sw. Fruitland, n. side Cottonwood Arroyo, *Spellenberg & Ward 7587* and *7594*.

Significance. First record for NM, and a 70-km se. range extension. This rarely collected species was previously known from e. cent. and se. UT, and from w. cent. and extreme sw. CO, primarily from along the Colorado and San Juan River drainages (Reveal. 1976. Phytologia 34:409–484).

ERIOGONUM HOOKERI S. Wats. (POLYGONACEAE).—Same location as second collections of *E. scabrellum* (above), 1710 m, 10 Sep 1983, *Spellenberg & Ward 7595* (NMC).

Significance. First record for NM. This species occurs infrequently from e. CA, to sw. WY, to w. CO, and n. AZ.

PHACELIA DEMISSA Gray (HYDROPHYLLACEAE).—San Juan Co., 17 km s. Waterflow, 1.7 km e. of Chaco River (on Navajo Coal Mine lease between mine boundary corners L72 and L68), 1750 m, 7 Jun 1983, *Spellenberg & Soreng 7093* (NMC). Rare on barren badlands of the Fruitland Formation.

Significance. First record for NM. Known from ne. AZ, UT, and WY.

MENTZELIA THOMPSONII Glad (LOASACEAE).—Same location and date as above, *Spellenberg & Soreng 7090* (NMC, LA, NY, COLO, UNM). (Dup. det. by H. J. Thompson.)

Significance. First record for NM. Range extension of 75 km se. from sw. CO. Known from e. cent. and ne. Utah, and w. cent. and sw. Colorado, primarily along the Green, Colorado, and Gunnison river drainages (Glad. 1976. Madroño 23:283–292).—R. J. SORENG, Biology Dept., New Mexico State Univ., Las Cruces 88003.

WYOMING

SAUSSUREA WEBERI Hultén (ASTERACEAE).—Sublette Co., Wind River Range, above Green River Lakes, ne. ridge of Big Sheep Mt. (T39N R109W), 3100 m, 18 Aug 1981, *Soreng 1705* (COLO, RM). (Det. W. A. Weber.)

Significance. This collection lies between the known CO and MT ranges of this rare alpine species, and represents the first record of the genus in WY. The herbaria consulted (COLO, MONTU, RM) generated the following collections only. Colorado: Park and Summit Cos., 6 collections. Montana: Deer Lodge Co., 2 collections, same location. *Saussurea weberi* is currently listed in the *Federal Register* (15 Dec 1980) in Cat. 2.—R. J. SORENG, Biology Dept., New Mexico State Univ., Las Cruces 88003.

ANNOUNCEMENT

The Flora of the Central Wasatch Front, Utah, 2nd Ed., by Arnow, Albee, and Wyckoff [reviewed in *Madroño* 30(3):199] is available from the Utah Museum of Natural History, University of Utah, Salt Lake City 84112. (Softbound \$14.95)

ANNOUNCEMENT

XIV INTERNATIONAL BOTANICAL CONGRESS

Under the auspices of the International Union of Biological Sciences
Berlin (West), Germany, 24th July to 1st August 1987

The Programme will comprise 6 Divisions: metabolic botany, developmental botany, genetics and plant breeding, structural botany, systematic and evolutionary botany, and environmental botany. All plant groups will be considered, and aspects of both pure and applied research will be covered. Special emphasis will be laid on inter- and multidisciplinary topics. There will be plenary sessions, symposia, and sessions for submitted contributions (posters).

The Nomenclature Section will convene in Berlin on 20th to 24th July 1987.

Pre- and post-congress scientific Field Trips will be arranged to various parts of Central, South and North Europe.

The First Circular, containing further details and a preliminary registration form, is now available. Send your name and full address to ensure your inclusion on the mailing list. Your early reply will be appreciated.

Chairman of the Organizing Committee: Prof. Dr. Dr. h.c. K. Esser.

Enquiries should be sent to the Secretary of the Organizing Committee, Prof. Dr. W. Greuter.

Congress Address: XIV IBC, Bot. Garden & Museum, Königin-Luise-Str. 6-8, D-1000 Berlin (West) 33, Germany.